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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/717,985
Filing Date: November 20, 2003
Appellant(s): TANIGUCHI ET AL.

John Forcier
For Appellant

MAILED
JUL 11 2007
GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4/24/07 appealing from the Office action mailed 1/26/06.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-5, 8-23, and 25-31.

Claims 6 and 7 are withdrawn from consideration as not directed to the elected species.

Claims 24 and 32 have been canceled.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,206,795	OU	3-2001
5,624,517	GIESEN et al.	4-1997
4,157,517	BOUTLE	6-1979
JP 01/265979	SHISHIDO et al.	10-1989
GB 1,095,969	W.J. VOIT RUBBER	12-1967

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 9, 11, 12, 25, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 1-265979.

JP 1-265979 discloses forming a ball by forming a bottom layer(panel, 7) and forming a top layer(protective layer, 8). Since the bottom layer is injection molded against the top layer, it is connected to it. Since the layers are intended to be attached to the surface of a ball, they substantially correspond to a section of the surface of the ball. The claim does not require the top layer to be curved to correspond to the curvature of a section of the ball, but rather dimensioned, i.e. of the same size. The top layer is shown having a convex curvature(Figure 4) and since the bottom layer is injection molded against it, the bottom layer is also considered to have a generally convex curvature as one side of it is convex. It is noted that the claims do not require any order to the steps, such that the claims do not require the bottom layer and top

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layer to be convex prior to their connection with each other. Moreover the claims fail to define over a layer wherein one of the surfaces of a layer is convex while the other is not.

Regarding claim 11, the top and bottom layers are connected via an adhesive(17).

Regarding claim 12, since the bottom layer is formed by injection molding against the top layer, it would be substantially free of stress at the bond line since the bottom layer was fluid when the bonding occurred.

Regarding claim 30, JP 1-265979 discloses the ball is made of rubber, an elastic material.(claim 1)

Claims 5, 10, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claims 1 and 25.

The reference discloses as stated above, but does not explicitly state how the top layer is pressed against the mold surface as shown in Figure 5. However, it is well-known and conventional in the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to deep draw or vacuum form the top layer in Figure 5 since it is well-known and conventional in the molding arts to force a substrate against a mold surface prior to injection molding to insure the sheet is properly placed.

Regarding claim 26, while JP 1-265979 does not explicitly disclose using an adhesive to bond the panels to the ball, it would have been obvious to one of ordinary

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skill in the art at the time the invention was made to use an adhesive to bond the panels to the ball since the use of adhesives to bond materials together is extremely well-known and conventional in the bonding arts.

Regarding claim 27, a thread layer(11) and a lining(10) are located between the panels and the ball. One in the art would appreciate that such materials would act as a reinforcing layer.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1-265979 as applied to claim 1 and further in view of Ou '795, Boutle, and GB 1,095,969.

The reference discloses as stated above, but does not disclose the material the cover layer is made of. Ou '795 discloses that cover layers are conventionally made of artificial leather to look like real leather(Col. 2, ll. 25-26) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cover layer of JP 1-265979 of a material used to make artificial leather since Ou '795 discloses artificial leather is conventionally used to cover game balls and that the polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

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Regarding claim 15, while JP 1-265979 does not disclose the cover layer is transparent, the printing(5) is located beneath the cover layer and one in the art would appreciate that in order for the printing to be seen, the cover layer would need to be transparent. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the cover layer of JP 1-265979 transparent so that the printing could be seen.

Regarding claim 16, the printing is on the inside of the cover layer(Figure 6). Since the cover layer is clearly cut between Figure 5 and Figure 2, one in the art would appreciate that the cover layer is cut into a desired shape.

Regarding claim 17, while JP 1-265979 does not disclose precisely how the printing is applied to the cover layer, a well-known and conventional method of applying a pattern is by depositing the imaging material on the surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the pattern on the surface of the cover material by depositing the imaging material on the surface since this is a well-known and conventional method of applying an image to a surface.

Claims 1, 8, 9, 18, 19, 22, 23, 25, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ou(U.S. Patent 6,206,795).

Ou '795 discloses forming a panel for a basketball by bonding together a foam layer and cover layer, both layers corresponding substantially to a section of the surface of the ball.(Figure 4) The panel is convex.(Figures 7A and 7B) particularly since the reference describes Figures 7A-7D as sectional views of the panels and showing a

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curved panel when the panel was not curved would show a distorted sectional view, undermining the purpose of showing a cross-section, i.e. to show the relationship between elements.

Regarding claim 8, Ou '795 discloses the layers are bonded together, indicating they are formed independently of one another.(Col. 3, ll. 58-59)

Regarding claim 9, Ou '795 discloses the two layers are substantially the same size.(Figure 4)

Regarding claims 18 and 19, Ou '795 discloses the foam layer can be polyurethane or ethylene vinyl acetate.(Col. 3, ll. 36-38)

Regarding claims 22 and 23, Ou '795 discloses attaching a lining cloth to the inner surface of the foam layer.(Figure 4; Col. 3, ll. 64)

Regarding claim 29, each panel has an outer surface/layer which is self-supporting.

Regarding claims 29-31, the edges of the panels are interconnected to form a cover for the ball.(Figures 2 and 4) It is noted that the claim does not require the edges of the panels to contact each other.

Regarding claim 29, since the cover layers are preforms, they are self-supporting structures.

Regarding claim 30, the bladder is made of rubber.(Col. 3, ll. 1-3)

Regarding claim 31, since the panels have a stronger curvature than the ball to which they are applied(Figure 4), they have a radius of curvature while not under load which is less than the radius of curvature of the ball when inflated.

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Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 and further in view of Giesen et al.(U.S. Patent 5,624,517).

The reference discloses as taught above but does not disclose forming the cover layer by forming it on the three-dimensional foam layer. Giesen et al. discloses deep drawing a film to form it against a foam layer.(Figure 3; Col. 2, ll. 4-17) This forms a three-dimensional film bonded to a configured foam layer wherein the foam layer already has its final shape prior to application of the film. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the cover layer of Ou '795 on the foam layer by deep-drawing the cover layer onto the foam layer as shown by Giesen et al. since it is often difficult to apply adhesive uniformly and homogeneously and this process avoids this drawback(Col. 1, ll. 30-35, 38-40) and for the foam layer to be preshaped to its final convex form prior to application of the film since this is how the process of Giesen et al. suggests the process be performed.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1 and further in view of Boutle(U.S. Patent 4,157,424) and GB 1,095,969.

Ou '795 discloses the cover layer can be an artificial leather such as polyurethane.(Col. 2, ll. 252-6) but does not disclose the polyurethane is a thermoplastic elastomer. Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75) It would have been obvious to one of ordinary skill in the art at the time the invention was made that the

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polyurethane of Ou '795 was a thermoplastic elastomer since Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers(Col. 2, ll. 33-43) and since GB 1,095,969 discloses that it is known to use elastomeric materials as the covers for balls.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ou '795 as applied to claim 1.

Ou '795 discloses as stated above, but does not explicitly state the foam is vulcanized prior to bonding. However, one in the art would appreciate that since the foam is a preform prior to bonding, it would have been obvious to vulcanize it prior to bonding so that only the foam layer would be subjected to the high heat necessary for vulcanization. It would have been obvious to one of ordinary skill in the art at the time the invention was made to vulcanize the foam layer prior to bonding it to the cover layer so that the cover layer would not be subjected to the high temperatures necessary for vulcanization.

Regarding claim 21, while the foam layer can be considered the second material, the lining cloth can alternatively be considered the second layer since it is connected to the cover layer via the intervening foam layer. The lining cloth is made of fabric, and fabric is conventionally considered to be a mesh since it has openings through which small particles and air can travel.

(10) Response to Argument

Regarding appellant's argument that JP 1-265979 discloses flat panels that only become convex when applied to the ball, the claim does not require that the formed

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panel be convex other than the outer surface being dimensioned to correspond to a section of the surface of the ball. The claim requires the top and backing layers to be "generally convex". Clearly the top layer(13) of JP 1-265979 is generally convex as it is curved. The backing layer also has one curved side, and it is examiner's position that this meets the limitation of "generally convex" as the exact meaning of this term has not been defined by appellant, and therefore one side of a layer being convex is considered generally convex. Regarding the limitation of the outer surface of the top layer being dimensioned to correspond to a section of the surface of the ball, the claim does not require the top layer to be curved to correspond to the curvature of a section of the ball, but rather dimensioned, i.e. of the same size.

Regarding appellant's argument that the inner surface of the panel is not formed with a generally convex shape and will not substantially correspond to a section of the surface of the ball, the claim does not require the same curvature as the ball. Additionally, the claim requires the panel be "dimensioned to substantially correspond to a section of the surface of the ball", not curved to correspond to a section of the surface of the ball. Dimensioned does not require the same shape, but rather the same size.

Regarding the indentations in the backing layer of JP 1-265979, the claim does not require the bottom surface of the backing layer to be curved.

Regarding appellant's argument that Ou is utterly silent as to the curvature of the panels, the specification does not mention the curvature. However, Figures 7A-7D clearly show a convex curvature. While proportions of features of the drawings are not evidence of actual proportions when the drawings are not to scale, the drawings must

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be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art. (*In re Aslanian*, 590 F.2d 911, 200 USPQ 500 (CCPA 1979) One of ordinary skill in the art could clearly see the drawings show curved panels. Additionally, the reference discloses the figures are "sectional views". (Col. 2, ll. 55-62) Since they are cross-sections of the panels, not of the ball, one in the art would appreciate that distortions in them, such as showing them curved when they are not curved, would distort the cross-section that the drawing is intended to show. If the panels, while not on the ball are flat, why are they shown curved? A reference teaches not only what is taught by the specification but also what one in the art reading the reference "as a whole" including drawings teaches. The reference is silent as to the curvature of the panels, and the specification would not lead one to believe the drawings were shown wrong.

Regarding appellant's argument that the cover panels of Ou are conventional cover panels, and therefore flat, the specification is unclear as to whether "conventional" refers to the shape of the panels or the material they are generally made of. However, the drawings clearly show the panels as curved, and absent a teaching in the reference that the panels are only shown curved since they are curved after application to the ball, one in the art looking at the drawings would presume the panels were curved when not on the ball. It is noted that applicant has provided no evidence that "conventional panels" are flat.

Regarding appellant's argument that Ou shows a partial exploded view of the ball in Figures 3 and 5, and therefore the panels in Figures 7A-7D are also exploded, the

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reference does not disclose such. If Figures 7A-7D were also exploded views of a ball, why does the reference not describe them as such?

Regarding appellant's argument that the problem of panel edges peeling from the surface of the ball described in Ou would only be of relevance when using flat panels, the cutting of the corners of the panels described in Ou allows the ribs to form a more "3-dimensional appearance for the basketball."(Col. 4, ll. 31-32) The edges of the panels are inclined to provide a more three-dimensional appearance. The reference does not disclose this shaping is to prevent peeling of the panels from the ball. Rather it indicates the thinness at the edges, and presumably the inclined ribs, are to prevent weak attachment of the panel to the ribs and to prevent spur edges, i.e. edges of the panel which are higher than the ribs.(Col. 3, ll. 39-48)

Regarding appellant's argument that claim 25 requires the edges of the panels to be interconnected, the claim does not require the panels to be contacting.

Regarding appellant's argument that the panels of Ou cannot form a self-supporting structure, claim 29's term "outer layer" has no antecedent basis in claim 25, and examiner presumed it referred to the "top layer" of the panel which has an "outer surface", rather than the entire surface of the ball as argued by applicant. Each panel has an outer layer that is a self-supporting surface.

Regarding appellant's argument that examiner has failed to find references that teach the limitations of claims 2-4, Giesen et al. discloses deep drawing a film to form it against a foam layer.(Figure 3; Col. 2, ll. 4-17)

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Regarding appellant's argument that Giesen is directed to tubs and therefore would not be used to form a softer feeling ball, Giesen is used for processing steps which are independent of the hardnesses of the materials. There is no suggestion that these process steps only work with hard materials. Geisen teaches forming the cover layer on the foam layer by deep-drawing the cover layer onto the foam layer since it is often difficult to apply adhesive uniformly and homogeneously and this process avoids this drawback(Col. 1, ll. 30-35, 38-40) which would apply whether the foam was rigid material or a flexible material.

Regarding appellant's argument that examiner has failed to find references that teach the limitations of claims 13 -17, Boutle discloses that polyurethanes used as artificial leather are preferably thermoplastic elastomers.(Col. 2, ll. 33-43) GB 1,095,969 discloses that it is known to make ball covers from elastomeric materials.(Pg. 1, ll. 71-75)

Regarding appellant's argument that the figures of Ou do not render the method of forming the panels obvious, appellant's independent claims do not include method steps. They simply state two generally convex panels are somehow connected to form a final product. Ou shows a similarly shaped final product. The independent claims do not require any specific formation method, simply stating what the final product looks like.

Regarding appellant's argument that examiner has failed to find references to teach certain limitations and they are therefore patentable, limitations are not necessarily patentable simply because a reference does not explicitly state the

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limitation. One in the art can infer limitations from a reference, such as the top layer of JP 01-265979 being transparent as otherwise the printing below it could not be seen.

Additionally, limitations can be well-known and conventional enough that examiner sees no need to find a reference showing a well-known and conventional fact in the bonding arts, such as applying a pattern is by depositing the imaging material on the surface.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

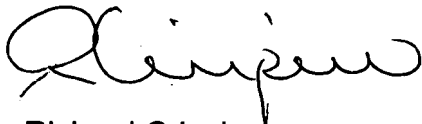
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BJM



Conferees:

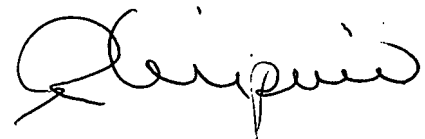


Richard Crispino

/Jennifer Michener/

Quality Assurance Specialist, TC1700

Jennifer Michener



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER